SEQUENCE LISTING

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GEORGIOU, GEORGE
IVERSON, BRENT L.

<120> COMBINATORIAL PROTEIN LIBRARY SCREENING BY PERIPLASMIC EXPRESSION

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<141> 2003-07-15

<150> 60/396,058
<151> 2002-07-15

<150> 09/699,023
<151> 2000-10-27

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<170> PatentIn Ver. 2.1

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<220>
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caggaaacag ctatgac 17

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<220>
<223> Description of Artificial Sequence: Synthetic Primer

<400> 2
gaattttctg tatgagg 17

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<220>
<223> Description of Artificial Sequence: Synthetic

Primer

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gccacctccg cctgaacc 18

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<220>
<223> Description of Artificial Sequence: Synthetic Primer

<400> 4
ctatgcggcc ccattca 17

<210> 5
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<220>
<223> Description of Artificial Sequence: Synthetic Primer

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<220>
<223> Description of Artificial Sequence: Synthetic Primer

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<210> 7
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<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic Primer

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<210> 8
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic Peptide

<400> 8
Gln Thr Thr His Val Pro Pro
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<210> 9
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic Peptide

<400> 9
Gln Thr Thr His Val Pro Pro
1 5

<210> 10
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic Peptide

<400> 10
Gln Thr Thr His Ser Pro Ala
1 5

<210> 11
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<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic Peptide

<400> 11
Gln Thr Thr His Leu Pro Thr
1 5

<210> 12
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic Peptide

<400> 12
Gln Thr Thr His Thr Pro Pro
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<210> 13
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic Peptide

<400> 13
Gln Thr Thr His Thr Pro Pro
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<210> 14
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic Peptide

<400> 14
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<210> 15
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<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic Peptide

<400> 15
Gln Thr Thr His Val Pro Pro
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<210> 16

<211> 7
<212> PRT
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Gln Thr Thr His Val Pro Ala
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<210> 17
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic Peptide

<400> 17
Gln Thr Thr His Ile Pro Ala
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<210> 18
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<212> PRT
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<220>
<223> Description of Artificial Sequence: Synthetic Peptide

<400> 18
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<210> 19
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<220>
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<400> 19
Gln Thr Thr His Val Pro Cys
1 5

<210> 20
<211> 741

<212> DNA
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<220>
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gatggaactg ttaaactcct gatctactac acatcaagat tacagtcagg agtcccatca 180
aggttcagtg gcagtgggtc tggaacagat tattctctca ccattagcaa ccaggagcaa 240
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ggcaccaagc tggaaataaa acgtggtggt ggtggttctg gtggtggtgg ttctggcggc 360
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aagcctgggg cctcagtgaa gatttcctgc aaagattctg gctacgcatt cagtagctct 480
tggatgaact gggtgaagca gaggcctgga cagggtcttg agtggattgg acggatttat 540
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gacaaatcct ccagcacagc ctacatgcag ctcagcagcc tgacctctgt ggactctgcg 660
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<210> 21
<211> 247
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
Peptide

<400> 21
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Asp Arg Val Thr Ile Ser Cys Arg Ala Ser Gln Asp Ile Arg Asn Tyr
20 25 30

Leu Asn Trp Tyr Gln Gln Lys Pro Asp Gly Thr Val Lys Leu Leu Ile
35 40 45

Tyr Tyr Thr Ser Arg Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
50 55 60

Ser Gly Ser Gly Thr Asp Tyr Ser Leu Thr Ile Ser Asn Gln Glu Gln
65 70 75 80

Glu Asp Ile Gly Thr Tyr Phe Cys Gln Gln Gly Asn Thr Leu Pro Trp
85 90 95

Thr Phe Gly Gly Gly Thr Lys Leu Glu Ile Lys Arg Gly Gly Gly Gly
100 105 110

Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser
115 120 125

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Glu Val Gln Leu Gln Gln Ser Gly Pro Glu Leu Val Lys Pro Gly Ala
    130                 135                 140

Ser Val Lys Ile Ser Cys Lys Asp Ser Gly Tyr Ala Phe Ser Ser Ser
145                 150                 155                 160

Trp Met Asn Trp Val Lys Gln Arg Pro Gly Gln Gly Leu Glu Trp Ile
                165                 170                 175

Gly Arg Ile Tyr Pro Gly Asp Gly Asp Thr Asn Tyr Asn Gly Lys Phe
            180                 185                 190

Lys Gly Lys Ala Thr Leu Thr Ala Asp Lys Ser Ser Ser Thr Ala Tyr
        195                 200                 205

Met Gln Leu Ser Ser Leu Thr Ser Val Asp Ser Ala Val Tyr Phe Cys
    210                 215                 220

Ala Arg Ser Gly Leu Leu Arg Tyr Ala Met Asp Tyr Trp Gly Gln Gly
225                 230                 235                 240

Thr Ser Val Thr Val Ser Ser
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<210> 22
<211> 741
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic Primer

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gacggaactg ttaaattcct gatctactac acatcaagat tacagccagg agtcccatca 180
aggttcagtg gcagtgggtc tggaacagat tattccctca ccattaacaa cctggagcag 240
gaagatattg gcacttactt ttgccaacag ggcaatacgc ctccgtggac gttcggtgga 300
ggcaccaagc tggaaataaa acgtggtgga ggtggttctg atggtggtgg ttctggcggc 360
ggcggctccg gtggtggtgg atccgaggtc caactgcaac agtctggacc tgagctggtg 420
aagcctgggg cctcagtgaa gatttcctgc aaagattctg gctacgcatt caatagctct 480
tggatgaact gggtgaagca gaggcctgga cagggtcttg agtggattgg acggatttat 540
cctggagatg gagattctaa ctacaatggg aaattcgagg gcaaggccat actgactgca 600
gacaaatcct ccagcacagc ctacatgcag ctcagcagcc tgacctctgt ggactctgcg 660
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<210> 23
<211> 247
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic

Peptide

<400> 23

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Asp Ile Gln Met Thr Gln Thr Thr Ser Ser Leu Ser Ala Ser Leu Gly
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Asp Arg Val Thr Val Ser Cys Arg Ala Ser Gln Asp Ile Arg Asn Tyr
            20                  25                  30

Leu Asn Trp Tyr Gln Gln Lys Pro Asp Gly Thr Val Lys Phe Leu Ile
        35                  40                  45

Tyr Tyr Thr Ser Arg Leu Gln Pro Gly Val Pro Ser Arg Phe Ser Gly
    50                  55                  60

Ser Gly Ser Gly Thr Asp Tyr Ser Leu Thr Ile Asn Asn Leu Glu Gln
65                  70                  75                  80

Glu Asp Ile Gly Thr Tyr Phe Cys Gln Gln Gly Asn Thr Pro Pro Trp
                85                  90                  95

Thr Phe Gly Gly Gly Thr Lys Leu Glu Ile Lys Arg Gly Gly Gly Gly
            100                 105                 110

Ser Asp Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser
        115                 120                 125

Glu Val Gln Leu Gln Gln Ser Gly Pro Glu Leu Val Lys Pro Gly Ala
    130                 135                 140

Ser Val Lys Ile Ser Cys Lys Asp Ser Gly Tyr Ala Phe Asn Ser Ser
145                 150                 155                 160

Trp Met Asn Trp Val Lys Gln Arg Pro Gly Gln Gly Leu Glu Trp Ile
                165                 170                 175

Gly Arg Ile Tyr Pro Gly Asp Gly Asp Ser Asn Tyr Asn Gly Lys Phe
            180                 185                 190

Glu Gly Lys Ala Ile Leu Thr Ala Asp Lys Ser Ser Ser Thr Ala Tyr
        195                 200                 205

Met Gln Leu Ser Ser Leu Thr Ser Val Asp Ser Ala Val Tyr Phe Cys
    210                 215                 220

Ala Arg Ser Gly Leu Leu Arg Tyr Ala Met Asp Tyr Trp Gly Gln Gly
225                 230                 235                 240

Thr Ser Val Thr Val Ser Ser
                245
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<210> 24
<211> 741
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<220>
<223> Description of Artificial Sequence: Synthetic
Primer

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aggttcagtg gcagtgggtc tggaacagat tattccctca ccattaacaa cctggagcag 240
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aagcctgggg cctcagtgaa gatttcctgc aaagattctg gctacgcatt caatagctct 480
tggatgaact gggtgaagca gaggcctgga cagggtcttg agtggattgg acggatttat 540
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gacaaatcct ccagcacagc ctacatgcag ctcagcagcc tgacctctgt ggactctgcg 660
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<211> 247
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
Peptide

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Asp Arg Val Thr Val Ser Cys Arg Ala Ser Gln Asp Ile Arg Asn Tyr
20 25 30

Leu Asn Trp Tyr Gln Gln Lys Pro Asp Gly Thr Val Lys Phe Leu Ile
35 40 45

Tyr Tyr Thr Ser Arg Leu Leu Pro Gly Val Pro Ser Arg Phe Ser Gly
50 55 60

Ser Gly Ser Gly Thr Asp Tyr Ser Leu Thr Ile Asn Asn Leu Glu Gln
65 70 75 80

Glu Asp Ile Gly Thr Tyr Phe Cys Gln Gln Gly Asn Thr Pro Pro Trp
85 90 95

Thr Phe Gly Gly Gly Thr Lys Leu Glu Ile Lys Arg Gly Gly Gly Gly
100 105 110

Ser Asp Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser
115 120 125

Glu Val Gln Leu Gln Gln Ser Gly Pro Glu Leu Val Lys Pro Gly Ala
130 135 140

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Ser Val Lys Ile Ser Cys Lys Asp Ser Gly Tyr Ala Phe Asn Ser Ser
145                 150                 155                 160

Trp Met Asn Trp Val Lys Gln Arg Pro Gly Gln Gly Leu Glu Trp Ile
                165                 170                 175

Gly Arg Ile Tyr Pro Gly Asp Gly Asp Ser Asn Tyr Asn Gly Lys Phe
            180                 185                 190

Glu Gly Lys Ala Ile Leu Thr Ala Asp Lys Ser Ser Ser Thr Ala Tyr
        195                 200                 205

Met Gln Leu Ser Ser Leu Thr Ser Val Asp Ser Ala Val Tyr Phe Cys
    210                 215                 220

Ala Arg Ser Gly Leu Leu Arg Tyr Ala Met Asp Tyr Trp Gly Gln Gly
225                 230                 235                 240

Thr Ser Val Thr Val Ser Ser
                245
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